D)

20

Specifically, M2 rapidly transitions to "On", while M1 remains "Off" for the brief interval required for switch 19 to transition from "On" to "Off". The discrete signals D1 and D2 have the same states as M1 and M2, respectively. The transition of signal M2 (and thus D2) to the "On" state serves to briefly turn "Off" the inverter gates in the PCSs such that, for a brief interval less than 4 ms, the PCSs of the fuel cells 18 do not provide an electrical power output while they are being reconfigured to the G/I mode of operation. During this interval, the PCS output regulators are being reconfigured, such that in the G/C mode they regulate power (real) and VARs and in the G/I mode they regulate voltage and frequency. The sync is also being reconfigured during this interval. This interruption is sufficiently brief and the switch 19 sufficiently fast, that there is little or no chance for an overload on grid 10 to adversely impact the remainder of power system 8.